REDACTED – FOR PUBLIC INSPECTION

AboveNet Fiber Network Maps

Fiber Maps

AboveNet

- #1 provider of metro fiber networks
- More than 1000 optically-enabled buildings
- 1.4 M metro fiber miles
- Major U.S. markets and London
- Lucent SmartLGX and fiber surveillance 24x7
- Connect between cities using AboveNet IP Network

United Kingdom

Seattle

Portland

San Francisco Bay Area

Los Angeles

Phoenix

Dallas

Houston

Chicago

Boston

New York Metro

Philadelphia

Baltimore

Washington DC Corridor

Atlanta

Installed Fiber: Choose A Metro Area Above For A Detailed Map

| Products & Services | Solutions | News | About AboveNet | Partners | Investors | Support |

Products & Services

AboveNet Products & Services Resources
IP and Fiber Maps

IP and Fiber Maps

AboveNet Fiber Network Maps

#1 provider of metro fiber networks, more than 950 optically-enabled buildings in 12 U.S. markets.

- #1 provider of metro fiber networks
- More than 1000 optically-enabled buildings
- 1.4 M metro fiber miles Major U.S. markets & London
- Lucent SmartGX™ fiber surveillance 24x7
- Connect between cities using AboveNet IP Network

Unconstrained Information Exchange. AboveNet provides the **dark fiber** infrastructure to meet your growing bandwidth needs.

AboveNet's Installed Fiber:

NEW: DETAILED FIBER MAPS FOR ALL MAJOR METRO AREA
(FLASH PLAYER REQUIRED)

Products & Services

Overview

Access

Transport

Hosting

Storage

App Management

Resources

GO:
Online Inquiry Form

or

Call AboveNet
for more information:

US
877-go-ABOVE
(877-462-2683)

United Kingdom
+44 (0) 20 7531 2200

AboveNet IP Backbone Architecture

Tier 1, high-performance global optical IP network

- Performance Engineering
- Unparalleled peering
- Network security leader

The AboveNet backbone has been optimized for scalability, survivability, performance, efficiency and manageability. The current AboveNet network consists of a set of sites interconnected in a partial mesh and will be extended to accommodate a larger number of sites moving toward a two level hierarchy. This two level approach allows arbitrary scaling at either level according to various technological and business imperatives.

AboveNet hubs are connected via AboveNet fiber and DWDM equipment terminating the fiber. This allows AboveNet to scale the bandwidth as needed. Backbone trunks range from OC12 to OC192 and AboveNet uses Packet Over SONET IP(POSIP) on all trunks due to its increased efficiency over ATM. This infrastructure enables AboveNet to deliver a high level of availability and fast Internet response for both domestic and international traffic.

Not just cutting-edge fiber optic networks, but we also have industry-leading peering arrangements which allow this network to be fully adaptable, redundant, and intelligent. We have over 430 peering arrangements, with over 1,000 sessions.

AboveNet Global Optical IP Network
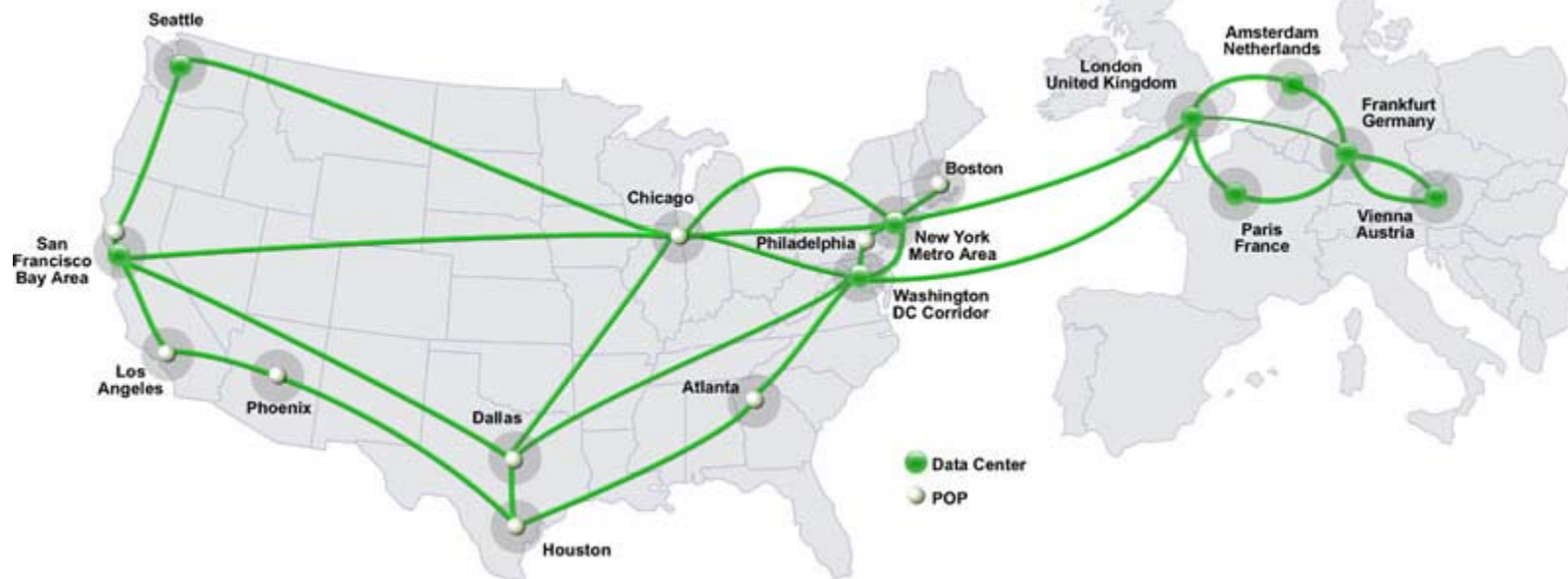
Discover the power of unconstrained information exchange on an all-optical infrastructure to revolutionize productivity and transform your business.
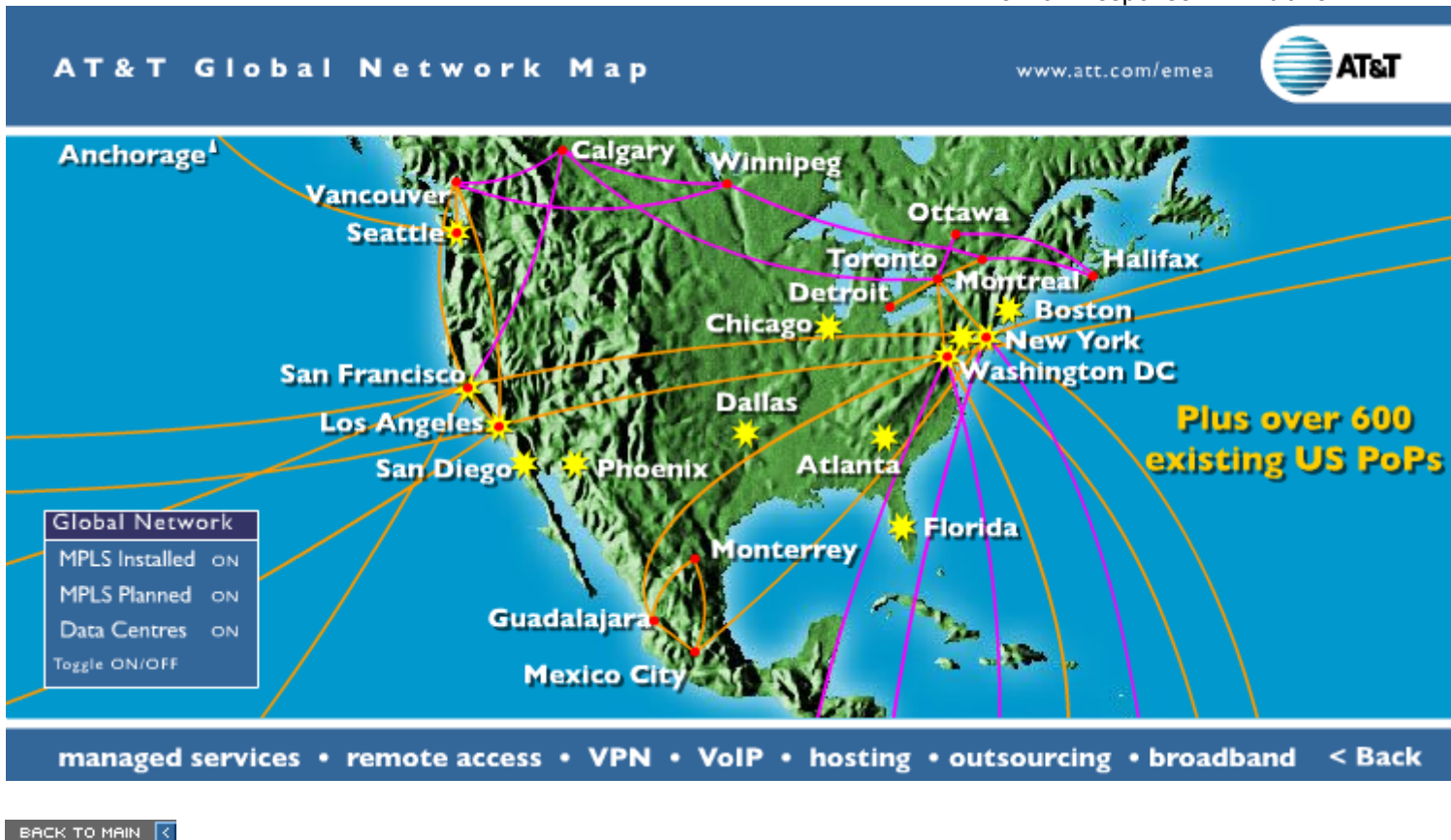
AboveNet. Get Connected.

ATDN

AOL Transit Data Network

USA Backbone POPs

Home

Network Map

Peering

**Acceptable Use
Policy**

FAQs
   New Peers
   Existing Peers

Copyright © AOL 2003 | peering@atdn.net

REDACTED – FOR PUBLIC INSPECTION

PRAIRIE RING

WEST RING

EDMONTON

SASKATOON

CALGARY

VANCOUVER

REGINA

VICTORIA

WINNIPEG

CENTRAL RING

QUEBEC RING

ALIANT RINGS

MONCTON

QUEBEC CITY

ST. JOHN

SEATTLE

MONTREAL

ONSLOW

OTTAWA

TORONTO

HALIFAX

BUFFALO

SAINT JOHN

CHICAGO

ALBANY

FREDERICTON

NEW YORK

TELERGY RING

PALO ALTO

LEGEND

— Existing Backbone Fibre

— Planned Backbone Fibre

— Leased Capacity Routes

● Cities with a single POP location

● Cities with multiple POP locations

North American Network

LEGEND

— Existing Backbone Fibre
— Leased Capacity Routes
● Cities with Single POP
● Cities with Dual POP
● Cities with Virtual POP

BellSouth.com

@ BELLSOUTH®

change service | establish service | moving?

| residential | small business | large business | my account | about us | view bill | pay bill | order status | repair service | search BellSouth | contact us | special needs |

Home > BellSouth® Managed Facility Locations

BellSouth® Managed Facility Locations with BellSouth® Dedicated Internet Access (DIA)

Refer to this map to define the BellSouth® Dedicated Internet Access (DIA) Internet backbone or aggregate point in your area. The larger dots will provide you with the backbone and the smaller dots aggregate points.
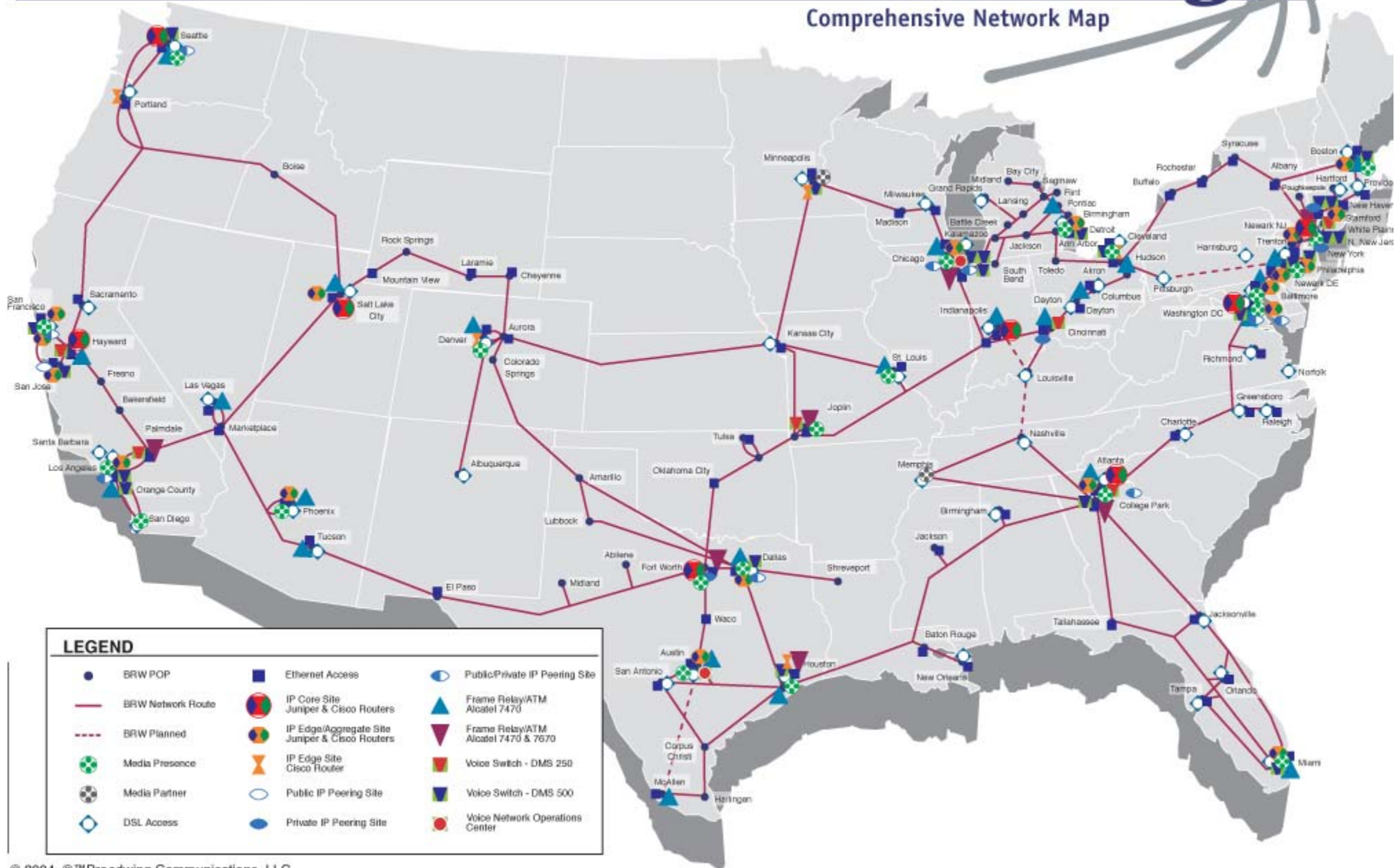

Establish Service | Change Service | Move Service | Upgrade to DSL | Ask BellSouth
Find People | Find Businesses | Search Catalog | Country / Languages

Broadwing

Comprehensive Network Map

LEGEND

Symbol	Description	Symbol	Description	Symbol	Description
•	BRW POP	■	Ethernet Access		Public/Private IP Peering Site
—	BRW Network Route		IP Core Site Juniper & Cisco Routers	▲	Frame Relay/ATM Alcatel 7470
- - -	BRW Planned		IP Edge/Aggregate Site Juniper & Cisco Routers	▼	Frame Relay/ATM Alcatel 7470 & 7670
	Media Presence		IP Edge Site Cisco Router	▼	Voice Switch - DMS 250
	Media Partner	○	Public IP Peering Site	▼	Voice Switch - DMS 500
◇	DSL Access		Private IP Peering Site		Voice Network Operations Center

© 2004, ®™Broadwing Communications, LLC
Approved for general use. Information subject to change without notice.

Broadwing

Transport Network Map

LEGEND

- • BRW POP
- — BRW Network Route
- --- BRW Planned

© 2004, ®™Broadwing Communications, LLC
Approved for general use. Information subject to change without notice.

btnaccess

Legend:
- ● Btn Node
- ● NAP Connections
- ◆ Private Peering Points
- ● Access Node

Map locations:
Seattle, SIX, PAIX, San Francisco, San Jose, Equinix, MAE West, Los Angeles, San Diego, Minneapolis, Denver, Kansas City, Mae Central, Equinix, Dallas, Houston, Atlanta, Tampa, Miami, Mexico City, Chicago, Equinix, AADS, Detroit, Toronto, Montreal, Boston, New York City, Philadelphia, Baltimore, Equinix, Ashburn, Vienna, Washington D.C., MAE East

For more information please visit **www.btnaccess.com** or contact our sales team at **sales@btnaccess.com**

Cogent Communication's Fiber Optic Network
80 Gbps in USA / 40 Gbps in Europe

KEY STATISTICS			
On-Net Buildings	1,000+	Data Centers	30
Inter-City Fiber Route Miles	21,000+	Data Center Space	330k+ sq ft
Metro Fiber Miles	8,400+	Metro Rings	161

Cogent Ranked 6th Largest Peered Network in the World

Source: FixedOrbit
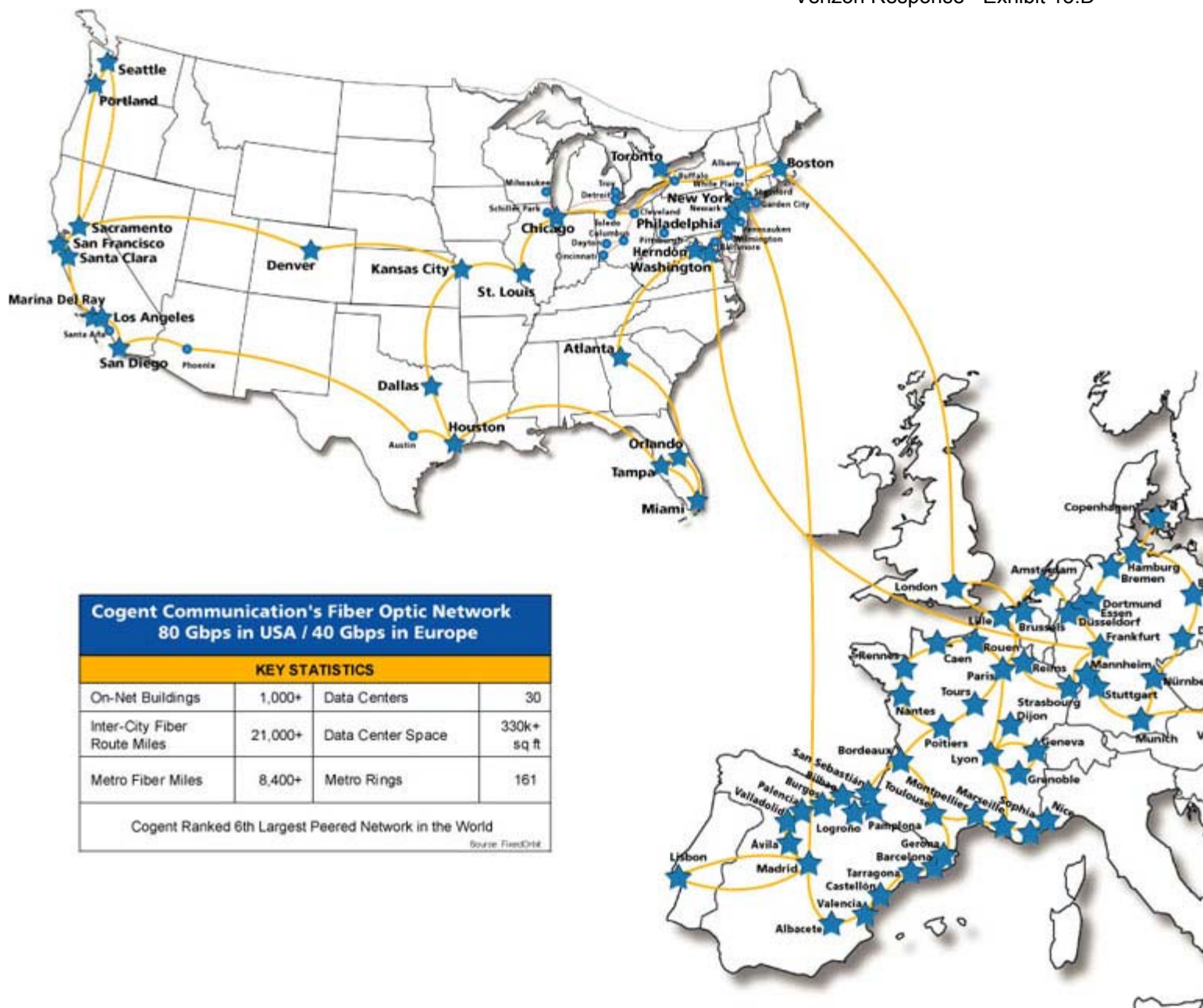
Cox Optical Internet

Cox Business Services knows what it takes to give your business the kind of reliable, scalable, high-speed Internet services your business depends on to grow – and we designed Cox Optical Internet to do just that. Cox Optical Internet uses our own fiber-based metropolitan networks and nationwide fiber optic IP backbone, designed and built by Cox, to give you exactly the capacity you need, even when your needs change. So no matter what bandwidth and complex applications your business requires, both today and in the future, Cox Optical Internet can handle it. Let Cox Optical Internet give your business:

Get Started Today

Remember: good communications mean good business. So no matter what speed and Internet capacity your business needs, both today and tomorrow, Cox's metropolitan area networks, nationwide IP backbone and Tier One Internet transit partners give you an unsurpassed foundation for non-stop growth. There's no better security for your critical communications than Cox's stable platform and reliable name. So get the bandwidth you need to communicate and grow. Contact your local sales representative. Tell us you want a better Internet connection and a communications platform built just for you. We'll get you started.

Cox Managed Local Connectivity For End-To-End Reliability

We deliver Cox Optical Internet over our own redundant, fully-meshed fiber optic metropolitan area networks (MANs), scalable up to OC-192 or even higher with our deployed DWDM technology. Each Cox MAN uses a transport technology – ATM, SONET or Gigabit Ethernet – to speed your data traffic to the Internet, so your business can count on Cox for the entire connection, from beginning to end.

A Communications Platform Built For You

Cox built our own nationwide fiber optic IP backbone with inter-Cox system links up to OC-48 in capacity to provide a solid foundation for the increasingly complex communications needs of businesses like yours. Through our numerous and geographically diverse private peering arrangements, Cox provides reliable connectivity and optimum throughput. We also maintain multiple interconnects —transit links of either an OC-48 or dual Gigabit Ethernet connection - with our Tier One transit partners, strategically placed at eight different geographic locations across the country. So go ahead and grow - we're built to handle it.

A Stable, Experienced Provider

No matter how technologically advanced the network is, your Internet services are only as reliable as the company providing them. That's why it's good to know that Cox Business Services is backed by the financial stability of Cox Communications, one of the nation's largest broadband companies. This proven strength gives Cox Business Services powerful advantages that other providers simply don't have, including state-of-the-art technology and a solid financial foundation. And it gives you the peace-of-mind that only comes from choosing Cox.

Responsive Support and Local Service

Your communications are critical to your business. Cox understands that. It's why we monitor our networks around the clock from our state-of-the-art Network Operations Center (NOC), allowing us to respond to potential problems before they affect your service. It's why we provide responsive customer care and local, professional technicians who are ready to help with whatever you need. In short, that's why you can count on Cox.
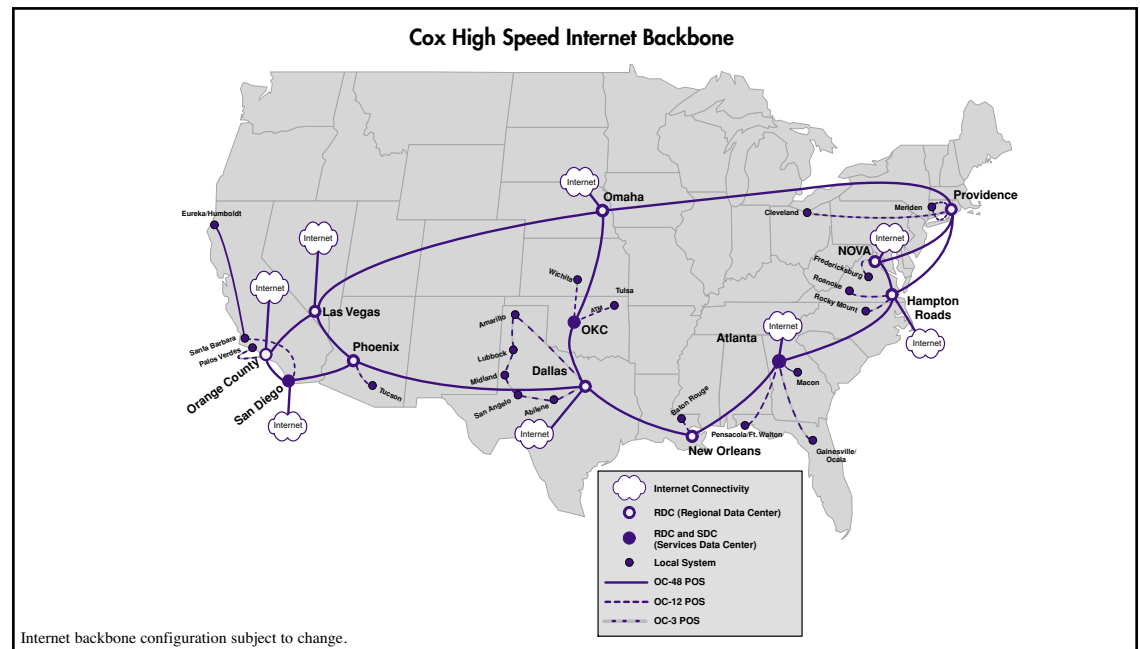
How It Works For You:

Choose the Cox Optical Internet speed that's right for you. Then enjoy all the features that your business needs to expand your reach online, including:

How The Cox Network Benefits You

There's no better way to get the stability, speed and scalability that your business needs to work efficiently and effectively than with Cox Optical Internet. That's because Cox delivers your service over both a fiber optic local network and a nationwide fiber optic IP backbone for a dual layer of reliability that simply can't be beat. Plus, Cox owns and manages our own network, providing a complete, end-to-end connection – and a level of service and dependability that you just can't find anywhere else. Count on Cox Optical Internet to provide the flexibility you want, plus the reliability you need, both for today and for tomorrow.

Service Features:

• Tiered bandwidth options scalable to OC-12

• Cox scalable, high-capacity metropolitan fiber network and nationwide fiber optic IP backbone up to OC-48

• Geographically diverse, high capacity private and public peering links to numerous content and service providers

• Variety of customer hand-offs, including 10/100 Ethernet, Gigabit Ethernet, DS-x and OC-x interfaces

• Primary and secondary DNS services

• Domain name registration

• CoxMail℠ available

• Newsgroup access

• Multiple public IP address leasing included*
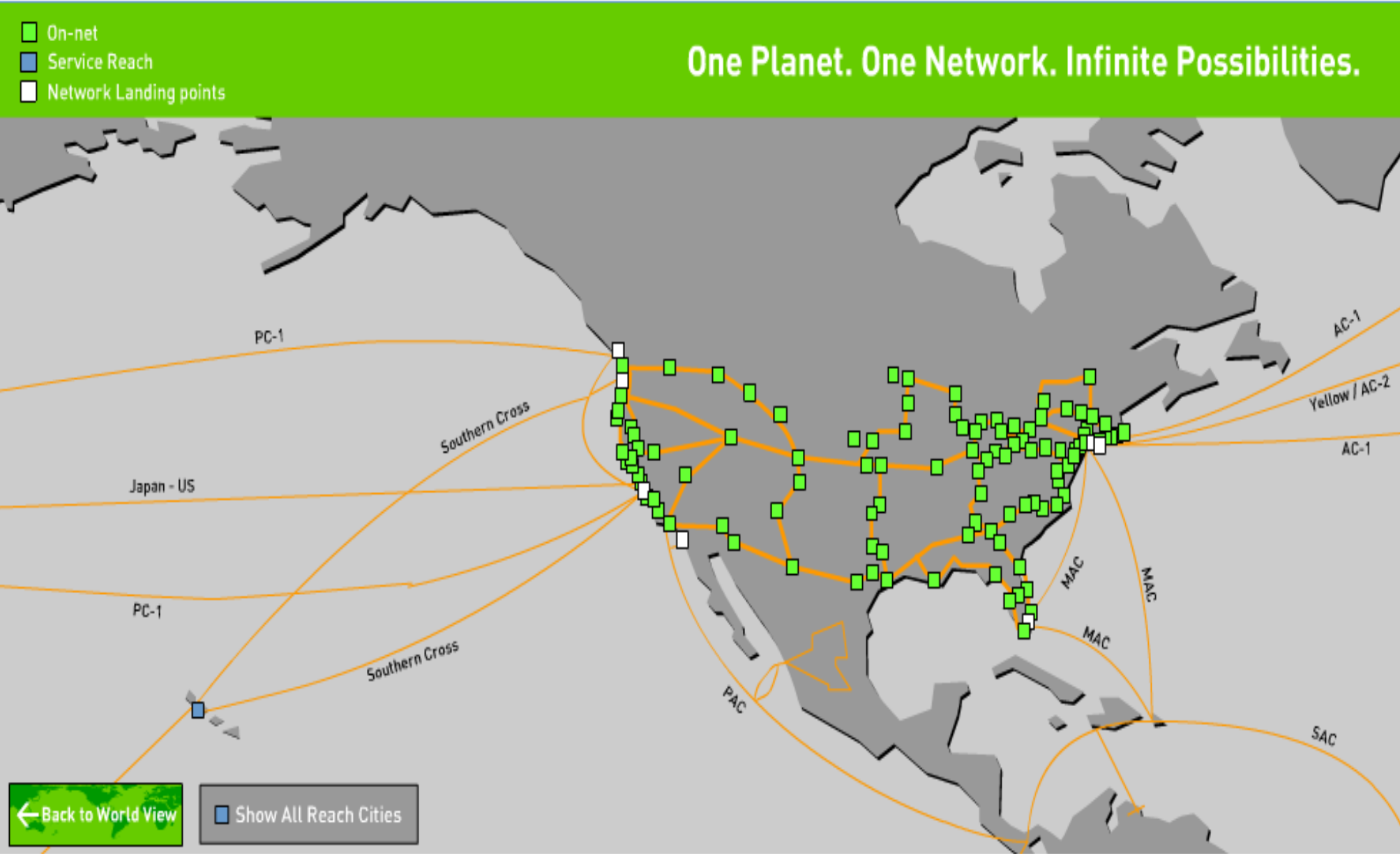
• BGP routing option†

Support Features:

• On-site installation and support

• Access circuit provisioning from your site to our hub

• End-to-end managed connection

• Network monitored 24 hours a day, seven days a week

• Responsive technical support around the clock

• Managed services options available, including VPN and router services
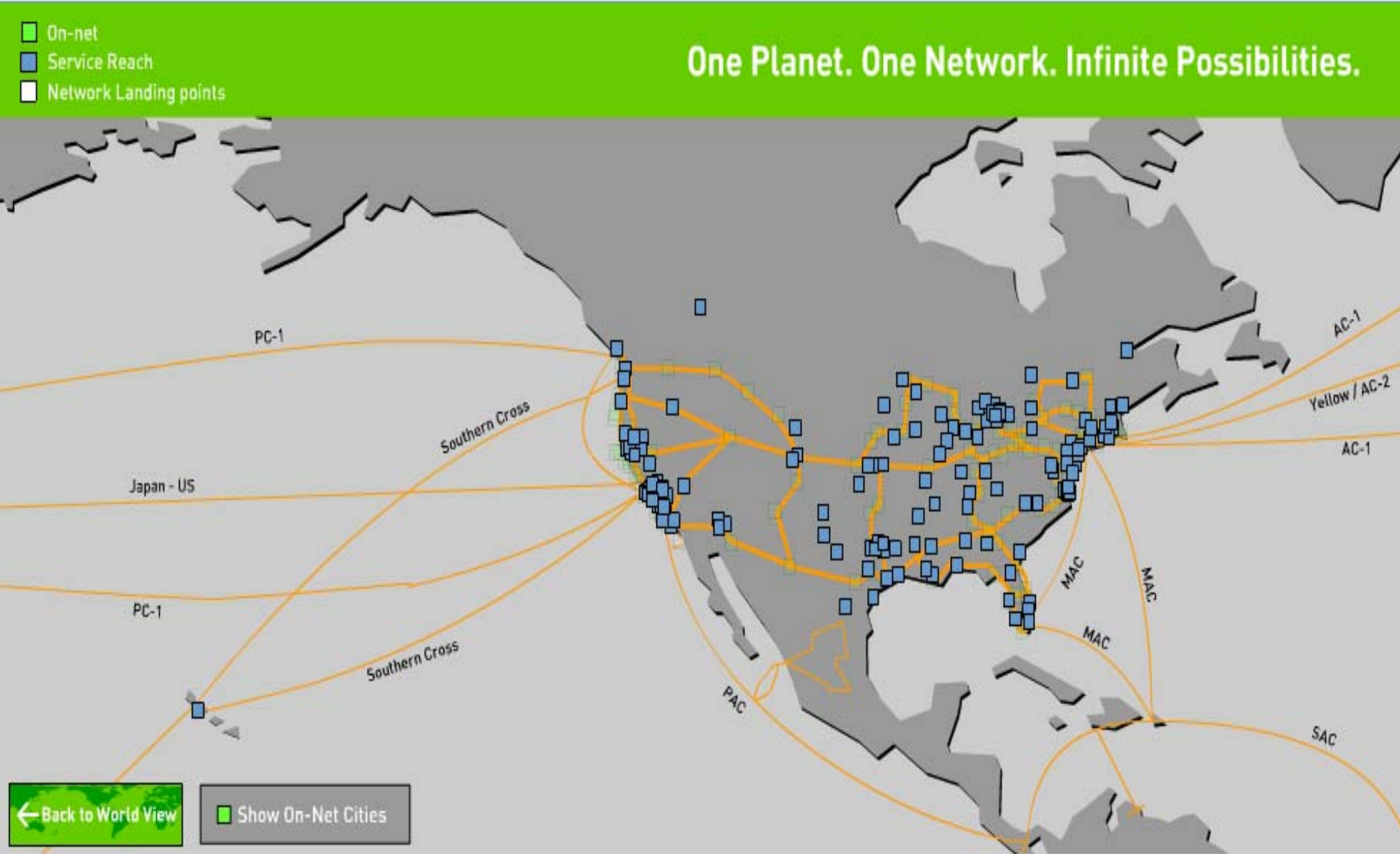

Cox High Speed Internet Backbone

Internet backbone configuration subject to change.

Internet Connectivity
RDC (Regional Data Center)
RDC and SDC (Services Data Center)
Local System
OC-48 POS
OC-12 POS
OC-3 POS

COX Business Services®

www.coxbusiness.com

Specific support and equipment repair and replacement obligations may vary depending on terms and conditions of applicable service agreement. Services not available in all areas. Other restrictions may apply.
*Subject to the Cox IP Address Assignment Policy.
†Subject to Cox's BGP peering requirements.

DCOI 12/02

REDACTED – FOR PUBLIC INSPECTION

REDACTED – FOR PUBLIC INSPECTION

REDACTED – FOR PUBLIC INSPECTION

REDACTED – FOR PUBLIC INSPECTION